1 Identification of the substance/mixture and of the company/undertaking

- Informations to product No. g444
- Product name:
  Oleum Citri
  Citronenöl
  Lemon oil

- Supplier of the Product / responsible Company:
  Caesar & Loretz GmbH
  Herderstr. 31
  40721 Hilden
  Tel.: 02103/4994-0
  Fax: 02103/32360
  e-mail: info@caelo.de
- Emergency telephone:
  Giftinformationszentrum Mainz
  Langenbeckstr. 1, 55131 Mainz
  Tel.: 06131/19240

- Relevant identified uses of the substance or mixture and uses advised against:
  No further relevant information available.
- Application of the substance / mixture:
  Ingredient for pharmaceutical drugs or active pharmaceutical ingredient.

2 Hazards identification

- GHS-Labelling Elements:
  ![GHS Symbols]

- Signal word: Danger
- H-Phrases:
  H226 Flammable liquid and vapour.
  H315 Causes skin irritation.
  H410 Very toxic to aquatic life with long lasting effects.
  H304 May be fatal if swallowed and enters airways.
  H317 May cause an allergic skin reaction.
- P-Phrases:
  P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking
  P241 Use explosion-proof electrical/ventilating/lighting/…/ equipment
  P301 IF SWALLOWED:
  P303 IF ON SKIN :
  P352 Wash with plenty of soap and water.
3 Composition / information on ingredients

- Chemical characterization
- Description: Essential oil, prepared from plant material by steam distillation
- CAS-No. Substance name:
  - 84929-31-7 Lemon Oil
  - EINECS-No.:
  - REACH Reg. No.:
  - INCI-Name: Citrus Limon Peel Oil

Hazardous components:
- CAS: 138-86-3, EINECS: 205-341-0, Limonene, H226; H304; H400; H315; H317, 50-100%
- CAS: 18172-67-3, EINECS: 242-060-2, beta-Pinen, H226; H304; H400; H317, 10-19,99%
- CAS: 99-85-4, EINECS: 202-794-6, p-Mentha-1,4-dien, H226; H304, 5-9,99%
- CAS: 5392-40-5, EINECS: 226-394-6, 3,7-Dimethyl-2,6-octadien-1-al (cis und trans), H315; H317, 2,5-5%
- CAS: 7785-26-4, EINECS: 232-077-3, alpha-Pinen, H226; H304; H400; H410; H317, 1-2,49%
- CAS: 123-35-3, EINECS: 204-622-5, 7-Methyl-3-methylenocta-1,8-dien, H226; H304; H315, 1-2,49%

4 First aid measures

- after inhalation: Fresh air. If irritation of respiratory ways continues, seek medical advice.
- after skin contact: Wash off with water, remove contaminated clothing.
- after eye contact: Rinse out with plenty of water with the eyelid wide open. If feeling unwell continuously seek medical advice.
- after swallowing: Seek medical advice immediately.

5 Fire-fighting measures

- Suitable extinguishing media: All regular extinguishing media can be used. Select fire fighting measures suitable to surrounding environment.
- Specific hazards during fire fighting: Combustible
- Special protective equipment for fire-fighters: Do not inhale combustion gases. Wear respiratory protection.
- Additional information: Prevent fire extinguishing water from contaminating surface water, the ground water system or soil. Residues must be deposited according to local regulations.

6 Accidental release measures

- Personal protective measures: Avoid contact with substance, Wear protective equipment. Good ventilation of working place.
- Environmental protective measures: Prevent from entering into drains. If product is entering drainage ditch or surface waters inform responsible authorities.
7 Handling and storage

- **Handling**: Good ventilation / exhaustion of working place. Avoid formation of aerosols.
- **Informations to fire or explosion protection**: Good ventilation / exhaustion of working place and storage place. Keep away from ignition sources – Do not smoke.
- **Storage**:
  - **Requirements for storage areas and containers**: Tightly closed. Store at a dry place. At room temperature ( +15°C to +25°C ). Store at a good ventilated place. Avoid safely penetration into soil.
  - **Advises on common storage**: Not required.
  - **Additional informations to storage conditions**: none

8 Exposure controls / personal protective equipment

- **Components with limit values that require monitoring at the workplace**: Limonene
- **Personal protective equipment**:
  - **General protective and hygiene measures**: The usual precaution measures during handling of chemicals are to observe.
  - **Respiratory protection**: Only required if aerosols or vapours are generated.
  - **Hand protection**: Protection gloves of rubber or latex or PVZ, for full contact 15 minutes maximum: Neopren. Suitable gloves for enduring contact, Material: Nitrile rubber/Nitrile latex Penetration time > 480 min., Thickness: 0,35 mm.
  - **Eye protection**: Safety glasses

9 Physical and chemical properties

- **Form**: liquid
- **Colour**: yellow
- **Odour**: strong odour of citrus fruits
- **Melting point / melting range**: not determined
- **Boiling point / boiling range**: not determined
- **Flash point**: 53 °C
- **Density**: (20 °C) 0.851 g/cm³
- **Solubility in / Miscibility with**
  - **Water**: not soluble

10 Stability and reactivity

- **Thermical decomposition / conditions to avoid**: No decomposition during appropriate use.
- **Materials to avoid**: Strong oxidizers, strong acids and bases.
- **Hazardous reactions**: No hazardous reactions known.
- **Hazardous decomposition products**: none
11 Toxicological information

- Acute toxicity:
- Primary irritating effect:
  - on skin: Irritant effect on skin and mucous membranes.
  - on eyes: Irritant effect
  - Sensitization: Sensitization by skin contact possible.

12 Ecological information

- Ecotoxical effects:
  Very toxic for fishes.
- General advices: Do not allow product to reach ground water, water course or sewage system even in small quantities. Danger to drinking water if even small quantities leak into the ground. In water toxic for fishes, very toxic for water organisms.
- Water hazard class: 2 (Self classification): Hazardous for water.

13 Disposal considerations

- Product:
  - Recommendation: Disposal according to local regulations as pharmaceutical waste.
- Empty contaminated packaging:
  - Recommendation: Disposal according to the local regulations.

14 Transport informations

- Land transport according to ADR:
  - Proper shipping name: Flammable liquids, n.o.s., Essential oil.
  - Class: 3
  - UN-number: 1993
  - Packing group: III
  - Classification code: F1
  - Limited quantities (Table 3.4.6. ADR): LQ 7
  - Hazard classification number: 30
  - Special provisions (Chapter 3.3 ADR): 274, 640E
  - Additional informations for sea transport IMDG:
    - EMS-No.: F-E, S-E
    - Properties: Fp=53°C

15 Regulatory information

- Labelling according to actual legislation (GHS, Globally Harmonized System of Classification and Labelling of Chemicals):
  The product is classified and labelled according to GHS-regulations.
  - Hazard symbols: GHS02, GHS07, GHS08, GHS09
  - Signal word: Danger
  - H-Phrases:
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H410 Very toxic to aquatic life with long lasting effects.
H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.

· P-Phrases:
P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking
P241 Use explosion-proof electrical/ventilating/lighting/…/ equipment
P301 IF SWALLOWED:
P331 Do NOT induce vomiting
P310 Immediately call a POISON CENTER or doctor/physician
P303 IF ON SKIN :
P352 Wash with plenty of soap and water.

· National regulations (Germany):
· Water hazard class: see chapter 12
· Storage class TRGS 510: 3
· VbF class: All

16 Other Information

The information provided in this MSDS is correct to the best of our knowledge at the date of edition.

· Reason for last revision: Adjustment to regulation (EC) 1907/2006 (REACH) and GHS-labelling system.